



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/942,886

08/30/2001

Michael Anthony Pugel

PU010164

9822

7590

05/03/2005

JOSEPH S. TRIPOLI
THOMSON MULTIMEDIA LICENSING INC.
2 INDEPENDENCE WAY
P.O. BOX 5312
PRINCETON, NJ 08543-5312

EXAMINER

MEHRA, INDER P

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/942,886

Applicant(s)

PUGEL, MICHAEL ANTHONY

Examiner

Inder P Mehra

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☒ Claim(s) 3-6 and 9-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/30/01, 2/5/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is in response to application dated: 8/30/01.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 2-12, and 14-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claim 2 recites the limitation "said plurality of transmission channels" in line 4.

There is insufficient antecedent basis for this limitation in the claim. This is preceded by "said plurality of available transmission channels" in claim 1 line 5. Similar problem exists in claim 14 line 4

- b. Claim 3 recites the limitation "the packet structure" in line 2. There is no antecedent basis for this limitation in the claim.

- c. Claim 7 recites the limitation "the loading" in line 3. There is no antecedent basis for this limitation in the claim.

- d. Claim 9 recites the limitation "said group packets" in line 3. There is insufficient antecedent basis for this limitation in the claim. This is preceded by "at least one group of packets" in claim 1 line 1, and "Null packets" in claim 1 line 6. Similar problem exists with "said packets" in claim 9 line 5

- e. Claim 10 recites the limitation "said bitstream" in line 3-4. There is insufficient antecedent basis for this limitation in the claim. This is preceded by "a first bit stream" in claim 9 line 2. Similar problem exists in claim 10 line 3-4.
- f. Claim 11 recites the limitation "said identified channel" in line 2. There is insufficient antecedent basis for this limitation in the claim.
- g. Claim 14 recites the limitation "said respective packet groups" in line 5. There is no antecedent basis for this limitation in the claim.
- h. Claim 15 recites the limitation "said identified channel" in line 4. There is no antecedent basis for this limitation in the claim.
- i. Claim 16 recites the limitation "the transport" in line 1. There is no antecedent basis for this limitation in the claim.
- j. Claim 19 recites the limitation "said corresponding at least one packet" in lines 4 and 5. There is insufficient antecedent basis for this limitation in the claim. This is preceded by "at least one packet" in claim 16 line 3.
- k. Claim 19 recites the limitation "said identified transmission channel" in lines 5-6. There is no antecedent basis for this limitation in the claim.
- l. Claim 20 recites the limitation "said channel identification " in line 1. There is no antecedent basis for this limitation in the claim. Similar problem exists in claim 21 line 1

Claim Rejections - 35 USC § 102

- 4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2666

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2, 13-14, 16 and 19 are rejected under 35 U.S.C. 102(e) as being **Gordon et al** (US Patent No. 6,754,271), hereinafter, Gordon.

For claims 1, 13 and 16, Gordon discloses a method , comprising:

- associating each of at least one group of packets forming a bit stream with a stream identifier and a respective sequence code, said at least one group of packets comprising at least one bit stream packet, **(coding a first sequence of pictures having included therein a time-varying portion; defining one or more slices for the time-varying portion in each coded picture in the first sequence; assigning the coded first sequence with a first packet identifier (PID); coding one or more second sequences of pictures, wherein each second sequence of pictures includes a portion specific to the sequence; defining one or more slices for the sequence-specific portion in each coded picture in each second sequence; and assigning each coded second sequence with a respective second PID; multiplexing packets with the first PID with packets with the second PIDs to generate one or more transport streams (Channels), refer to col. 44 lines 47), and**
- transmitting, via any one of a plurality of available transmission channels, each of said at least one group of packets, said transmission channels

- nominally transmitting NULL packets in the event of underutilization, said at least one group of packets being transmitted in place of said nominally transmitted NULL packets (The null data may be replaced by the graphics grid slices (e.g., at a later step, within the LNE, refer to col. 33 lines 35-40);
- said data structure comprising a header portion and a payload portion, said payload portion, **as recited by claim 16**, refer to col. 9 lines 45-50 and col. 12 lines 24-26.

For claims 2, 14 and 19, Gordon discloses all the limitations of subject matter of these claims including the following limitations:

- wherein at least one of said at least one group of packets forming said bit stream are correlated with channel identification and time of transmission information for, respectively, indicating which of said plurality of transmission channels will carry respective packet groups and the time said at least one group of packets are carried, (the method comprising: coding a first sequence of pictures having included therein a **time-varying portion**; defining one or more slices for the time-varying portion in each coded picture in the first sequence; assigning the coded first sequence with a first packet identifier (PID); coding one or more second sequences of pictures, wherein each second sequence of pictures includes a portion specific to the sequence, refer to col. 44 lines 29-42, and further, refer to “the final transport stream

Art Unit: 2666

first includes the video slice packets for time periods", refer to col. 20 lines 57-59.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Gordon et al**, hereinafter, Gordon, as above, in view of **Yamada et al** (US Patent Application No.2001/0007557), hereinafter, Yamada.

For claim 7 Gordon discloses all the limitations, including inserting non-allocated bit stream packets into said transmission channels in place of said nominally transmitted NULL packets, (refer to "the null data may be replaced by the graphics grid slices (e.g., at a later step, within the LNE, refer to col. 33 lines 35-40), of subject matter, with the exception of the following limitation, which is disclosed by Yamada, as follows:

- determining the loading of each of a plurality transmission channels;
determining an allocation of bit stream packets among the transmission channels; (refer to " determining a transfer path includes: calculating an allocation rate of the stream count being currently allocated to said load distribution ratio for each said preset said transfer destination route, when said

another transfer destination route is determined for said received stream of packets"; refer to page 43 claim 56).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of determining the loading of each of a plurality transmission channels; determining an allocation of bit stream packets among the transmission channels. The capability can be implemented at the Network Packet converter. The motivation for doing so as taught by Yamada being that different paths are routed for the same flow.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Gordon et al**, hereinafter, Gordon, as above, in view of **Yamada et al**, hereinafter, Yamada, as above, and further in view of **Birch** (US Application Publication No. 2002/0154694).

For claim 8, Gordon and Yamada disclose all the limitations of subject matter, including the following limitation, which is disclosed by Yamada, as follows:

- determining the loading of each of a plurality transmission channels; determining an allocation of bit stream packets among the transmission channels; (refer to “ determining a transfer path includes: calculating an allocation rate of the stream count being currently allocated to said load distribution ratio for each said preset said transfer destination route, when said another transfer destination route is determined for said received stream of packets”; refer to page 43 claim 56).

Gordon and Yamada do not disclose the following limitation, which is disclosed by Birch, as follows:

Art Unit: 2666

- transmission channel data rates, bit stream data rate, transmission channel utilization level, transmission channel loading level, transmission channel scheduling, bit stream quality of service requirement, refer to (Central bit rate controller 1007 returns the selected rate to channel, paragraph 0094 and paragraph 0135).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of determining the transmission channel data rate. The capability can be implemented at the Network Packet converter. The motivation for doing so as taught by Yamada being that different paths are routed for the same flow.

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Gordon et al**, hereinafter, Gordon, as above, in view of **Hamalainen et al (US Patent No. 5,640,395)**, hereinafter, Hamalainen.

For claim 15, Gordon discloses all the limitations of subject matter, with the exception of the following limitation, which is disclosed by Hamalainen, as follows:

- wherein said network interface utilizes said channel identification and time of transmission information to allocate respective transmission channel time slots to said at least one group of packets to be transmitted via said identified channel (refer to “In the channel request burst, the mobile station uses an Air-Interface Channel Identifier containing the network address of the mobile station, which address identifies the logical channel, and where it requests one

Art Unit: 2666

or more time slots from the frame, according to the needs of the moment. In the downlink direction, i.e. from the network (base station) to the mobile station, there are likewise two types of time slots: I-slots reserved for transmitting information", refer to col. 2 lines 2-11.).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of utilizing said channel identification and time of transmission information to allocate respective transmission channel time slots to said at least one group of packets to be transmitted via said identified channel. The capability can be implemented at the Network Interface. The motivation for doing so as taught by Hamalainen being that different paths and time slots are used for routing the same flow.

10. Claims 17-18 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gordon et al**, hereinafter, Gordon, as above, in view of **Yasuda et al** (US Patent No.6,373,905), hereinafter, Yasuda.

For claims 17-18 and 20-21, Gordon discloses all the limitations, with the exception of the following limitations, which are disclosed by Yasuda, as follows:

- wherein said stream identifier and said sequence code are stored within said header portion of said data structure, **as recited by claim 17**, refer to col. 2 lines 37-44.
- wherein said stream identifier and said sequence code are stored within the payload portion of said data structure, **as recited by claim 18**, , refer to col. 2 lines 37-44.

Art Unit: 2666

- wherein said channel identification and time of transmission information are stored within said header portion of said data structure, **as recited by claim 20**, , refer to col. 2 lines 37-44.
- wherein said channel identification and time of transmission information are stored within the payload portion of said data structure, **as recited by claim 21**, , refer to col. 2 lines 37-44.

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of stream identifier and said sequence code are stored within said header portion as well as payload portion of said data structure . The capability can be implemented at the Network Packet converter. The motivation for doing so as taught by Yasuda being that different paths are routed for the same flow.

Allowable Subject Matter

11. Claims 3-6, 9-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art of Record

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Slattery (US Patent No. 6,246,701) discloses a method and system providing for re-multiplexing program bearing data.

Conclusion


Art Unit: 2666

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P Mehra whose telephone number is 571-272-3170. The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder Pal Mehra
Inder P Mehra 4/26/05
Examiner
Art Unit 2666


Inder P Mehra
4/26/05